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EXAMINER

FERNANDEZ RIVAS, OMAR F

ART UNIT	PAPER NUMBER
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2129

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/762,099

Applicant(s)

ANDERSON ET AL.

Examiner

Omar F. Fernández Rivas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date A1.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This Office Action is in response to an AMENDMENT made by the Applicant entered on June 29, 2006.
2. The Office Action of March 23, 2006 is incorporated into this Final Office Action by reference.

### ***Status of Claims***

3. Claims 1-3, 11-12, 14, 19, 22-24 and 26-28 have been amended. Claims 1-29 are pending on this application.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The computer system must set forth a practical application of judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77. The invention is ineligible because it has not been limited to a substantial practical application.

For a claimed invention to be statutory the claimed invention must produce a useful, concrete, and tangible result. The Courts have found that subject matter that is not a practical application or use of an idea, a law of nature or a natural phenomenon is not patentable. See, e.g., *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. (20 Wall.) 498, 507

(1874) ("idea of itself is not patentable, but a new device by which it may be made practically useful is"); *Warmerman*, 33 F.3d at 1360, 31 USPQ2d at 1759.

For a claimed invention to be statutory under 35 U.S.C. 101, the claims must have the FINAL RESULT (not the steps) produce a useful (specific, substantial, AND credible), concrete (substantially repeatable/ non-unpredictable), AND tangible (real world/ non-abstract) result.

If the specification discloses a practical application but the claim is broader than the disclosure such that it does not require the practical application, then the claim must be amended. A claim that recites a computer that solely calculates a mathematical formula is not statutory.

In the present case, claim 1 describes a system for applying a genetic algorithm to a set of chromosomes to obtain child chromosomes. The claim describes the steps taken by the system while performing the genetic algorithm and how to the child chromosomes are produced. However, the claim fails to provide a useful and tangible result since the result obtained by the system is not provided to an outside device to make it useful or presented to a user in such a way that it can be perceived and used by the user. The result is kept inside the system, which is considered to be manipulation of abstract data inside a computer and thus not a real world/non-abstract (tangible) result. Claims 2-11 further describe the steps taken by the system to produce the child chromosomes but fail to solve the abstractness issue of claim 1 and are therefore rejected on the same basis.

Claims 12-21 describe a method for performing a function similar to that of the system of claims 1-11 and lack tangibility as set forth above regarding claims 1-11.

Therefore, claims 12-21 are rejected on the same basis as claims 1-11.

Claims 22-25 describe a method for performing a function similar to that of claims 1-11 and lack tangibility as set forth above regarding claims 1-11. Therefore, claims 22-25 are rejected on the same basis as claims 1-11.

Claims 26-29 describe a system for performing a function similar to that of claims 1-11 and lack tangibility as set forth above regarding claims 1-11. Therefore, claims 26-29 are rejected on the same basis as claims 1-11.

5. Claims 1-21 and 26-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. None of the elements in the system of claim 1 appear to necessarily require hardware and nothing in the specification defines any hardware components for performing the operations of claim 1. As such, claim 1 appears to be a system of software alone and therefore non-statutory. Everything in the claim is clearly just non-functional or functional descriptive material, per se, since there is no hardware component to process the data in the claims. Claims 2-21 depend on claim 1 and do not solve the problem stated above and are therefore rejected on the same basis as claim 1.

Claims 26-29 recite subject matter similar to that of claim 1 and are rejected on the same basis.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 26 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson (US Patent #6,766,497, referred to as **Anderson**).

**Claim 1**

Anderson anticipates a system for optimizing a circuit design (**Anderson**: C2, L52-67; C3, L1-6; C6, L40-57) comprising: a plurality of value sets represented as a plurality of real chromosomes, the plurality of value sets correspond to different circuit configurations associated with the circuit design generated by a circuit analysis tool (**Anderson**: C1, L20-25; C2, L56-62; C3, L1-6; C6, L40-57; Fig. 2; if the system produces chromosomes and analyzes them to give them scores, then it is a circuit analysis tool); a real cost function that determines real costs associated with the circuit design generated by a circuit analysis tool (**Anderson**: C2, L52-67; C3, L1-6; C6, L40-57; Fig. 2, item 210; EN: the score is the real cost function); a genetic algorithm that generates at least one generation of speculative chromosomes, the speculative

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chromosomes representing value set variations of the plurality of value sets, each generation of speculative chromosomes being assigned a speculative count corresponding to a speculative chromosome generation (**Anderson**: C3, L6-19; C3, L20-26; C4, L12-33; Figs. 2 and 5; Examiner's Note (EN): child chromosomes are speculative chromosomes. N is the number of children desired. In item 230 of figure 2, C is the count of children that has been generated (speculative count)); and a validator that initiates a validation once at least one speculative chromosome has a predetermined speculative count, the validation comprising executing the real cost function on the at least one speculative chromosome to provide a real cost associated with the at least one speculative chromosome (**Anderson**: C3, L20-38; Fig 2, items 230, 235, 240; simulating and evaluating the child chromosomes when  $C=N$ ).

### **Claim 2**

Wherein the real cost function comprises the circuit analysis tool and a power/timing estimator (**Anderson**: C2, L52-67; C3, L1-38; C6, L45-57; simulating power consumption to be minimized while maintaining acceptable timing).

### **Claim 3**

Anderson anticipates the genetic algorithm generates generations of speculative chromosomes until a desirable circuit configuration based on real costs has been satisfied (**Anderson**: C3, L28-38; Fig. 2; EN; simulating the children and terminating once a predetermined tolerance has been reached).

**Claim 4**

Anderson anticipates the genetic algorithm generates a speculative child chromosome from at least one of a first parent chromosome and a second parent chromosome (**Anderson**: C4, L34-36; C5, claim 1; Fig. 6), wherein the speculative child chromosome is assigned a speculative count that is higher than the speculative count of the parent chromosome having the higher speculative count (**Anderson**: C3, L20-38; Fig. 2, item 230; EN: the number C is assigned in each iteration to each child produced; the count for each child produced will be higher than the count for any of the parents).

**Claim 5**

Anderson anticipates the at least one of a first parent chromosome and a second parent chromosome is selected from at least one of the plurality of real chromosomes and subsequent generations of speculative chromosomes (**Anderson**: C3, L32-38; EN: beginning a new mating season with the updated chromosome pool will select parents from the original chromosome pool (real chromosomes) and from the child chromosomes (speculative chromosomes)).

**Claim 6**

Anderson anticipates a speculation counter that increments for each new generation of speculative chromosomes generated by the genetic algorithm (**Anderson**: C3, L20-24; Fig. 2, item 230; EN: the value C is a control variable controlling the loop, it must be incremented on each iteration).



**Claim 7**

Anderson anticipates the validator initiates a validation on at least one speculative chromosome when the speculation counter has achieved a count value equal to the predetermined speculative count (**Anderson:** C3, L20-24; Fig. 2, items 230, 235, 240 and 245; EN: assigning scores and evaluating the children after  $C=N$ ).

**Claim 8**

Anderson anticipates a speculative pool that stores speculative chromosomes and assigned speculative counts (**Anderson:** C3, L20-28; Fig. 2; EN: generating N children is generating a speculative pool).

**Claim 9**

Anderson anticipates the validator initiates a validation once at least one speculative chromosome in the speculative pool has a predetermined speculative count (**Anderson:** C3, L20-24; Fig. 2; EN: the validation will start when  $C=N$ ).

**Claim 10**

Anderson anticipates the validator initiates a validation on the entire speculative pool once at least one speculative chromosome in the speculative pool has a predetermined speculative count (**Anderson:** C3, L20-38; Fig. 2; EN: all of the children are processed in parallel when  $C=N$ ).

**Claim 26**

Anderson anticipates means for determining real costs associated with a plurality of real chromosomes, wherein the real chromosomes represent different circuit configurations associated with the circuit design (**Anderson:** C2, L52-67; C3, L1-6; C6,

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L45-57; Fig. 2, item 210; EN: the score is the real cost function); means for generating generations of speculative chromosomes with assigned speculative counts corresponding to a generation number of the speculative chromosome (**Anderson**: C3, L6-19; C3, L20-26; C4, L12-33; Figs. 2 and 5; Examiner's Note (EN): N is the number of children desired. In item 230 of figure 2, C is the count of children that has been generated (speculative count) assigned to each generation of child chromosome), the speculative chromosome being assigned a speculative count that is higher than a parent chromosome from which it is derived (**Anderson**: C3, L20-38; Fig. 2, item 230; EN: the number C is assigned in each iteration to each child produced; the count for each child produced will be higher than the count for any of the parents); and means for postponing validation of at least one speculative chromosome, until at least one speculative chromosome has a predetermined speculative count (**Anderson**: C3, L20-38; Fig. 2; Simulating and assigning scores to the children after  $C=N$ ); and means for validating of at least one speculative chromosome by executing the means for determining a real cost on at least one speculative chromosome (**Anderson**: C3, L20-38; Fig 2, items 230, 235, 240; simulating and evaluating the child).

#### **Claim 29**

Anderson anticipates the means for validating executing the means for determining a real cost on a plurality of speculative chromosomes retained in a speculative pool (**Anderson**: C3, L20-38; Fig. 2; EN: the N child chromosomes in the pool are simulated in parallel and assigned scores).

**Response to Applicant's arguments**

**Rejection Under 35 U.S.C. §101**

7. The arguments regarding the rejection Under 35 U.S.C. §101 have been fully considered but are not persuasive. The amendments made to the claims do not overcome the problems addressed in the rejection under 35 U.S.C. § 101 set forth above. The final result produced by the invention is still not outputted (stored in memory, displayed or provided to an outside device) from the system, which means that no change is being produced in the system or no use can be given to the result provided by the invention disclosed. As stated above in the rejection under 35 U.S.C. § 101, for a claimed invention to be statutory under 35 U.S.C. 101, the claims must have the FINAL RESULT (not the steps) produce a useful (specific, substantial, AND credible), concrete (substantially repeatable/ non-unpredictable), AND tangible (real world/ non-abstract) result.

**Rejection Under 35 U.S.C. §102**

8. The arguments regarding the rejection Under 35 U.S.C. §102 have been fully considered. The Applicant is reminded that it is the Examiner's to interpret each claim by giving it the broadest reasonable interpretation.

**In reference to Applicant's arguments:**

Anderson discloses a genetic optimization process that includes generating a set of unique chromosomes and assigning the chromosomes a performance score (See Anderson, Col. 2, Line 56-Col. 3, Line 4). Anderson does not disclose a genetic algorithm that generates at least one generation of speculative chromosomes, the speculative chromosomes representing value set variations of a plurality of value sets, each generation of speculative chromosomes being assigned a speculative count corresponding to a speculative chromosome generation, as recited in amended claim 1. The Examiner contends that item 230 of FIG. 2 of Anderson corresponds to the speculative count recited in amended claim 1. Applicant respectfully disagrees. As stated in the Office Action, in Anderson, 'C' is the count of children that have been generated. Amended claim 1 recites that a speculative count corresponds to a speculative chromosome generation. That is, in amended claim 1, the speculative count represents the

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number of generations a speculative chromosome is removed from a real chromosome. The 'C' value disclosed in Anderson has no relation associated with the generation of the children that are counted. Thus, Anderson does not disclose a genetic algorithm that generates at least one generation of speculative chromosomes, the speculative chromosomes representing value set variations of a plurality of value sets, each generation of speculative chromosomes being assigned a speculative count corresponding to a speculative chromosome generation, as recited in amended claim 1.

**Examiner's response:**

The claims and only the claims form the metes and bounds of the invention. Limitations appearing in the specification but not recited in the claim are not read into the claim. The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The system of Anderson generates children chromosomes (speculative chromosomes). Nothing in the claim would suggest that a generation is composed of multiple children. Each chromosome produced is considered to be a generation and the value C corresponds to each chromosome (generation) generated by the system.

**In reference to Applicant's Argument:**

Additionally, Anderson does not disclose a validator that initiates validation once at least one speculative chromosome has a predetermined speculative count, as recited in amended claim 1. As stated above, Anderson does not disclose a speculative count. Thus, Anderson cannot disclose a validator that initiates validation once at least one speculative chromosome has a predetermined speculative count, as recited in amended claim 1. Accordingly, Anderson does not disclose each and every element of amended claim 1. Therefore Anderson does not anticipate amended claim 1. Thus, amended claim 1 should be patentable over the cited art.

**Examiner's response:**

As stated above, in figure 2 of **Anderson** the children are evaluated (validated), once  $C=N$ , C being the speculative count.

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**In reference to Applicant's Argument:**

Additionally, claim 4 recites a genetic algorithm that generates a speculative child chromosome from at least one of a first parent chromosome and a second parent chromosome, wherein the speculative child chromosome is assigned a speculative count that is higher than the speculative count of the parent chromosome having the high speculative count. Claim 4 further clarifies the meaning of "speculative count." As stated above, in Anderson the number 'C' has no relationship to the generation of child chromosome being counted. Accordingly, Anderson does disclose each and every element of claim 4.

**Examiner's response:**

As stated above the number C (speculative count) is assigned in each iteration to each child produced (generation); the count for each child produced will be higher than the count for any of the parents.

**In reference to Applicant's Argument:**

Furthermore, claim 6 recites a speculation counter that increments for each new generation of speculative chromosomes generated by a genetic algorithm. The value 'C' disclosed in Anderson increases for each child chromosome produced. That is, in Anderson, each child chromosome corresponds to a unique value of 'C'. In contrast, in claim 6, each generation of chromosome has a unique speculation count. Thus, the 'C' value disclosed in Anderson is operating completely differently than the speculation counter recited in claim 6. In claim 6, multiple chromosomes of the same generation can have the same speculation count. Therefore, Anderson does not disclose a speculation counter that increments for each new generation of speculative chromosomes generated by a genetic algorithm, as recited in claim 6.

**Examiner's response:**

The claims and only the claims form the metes and bounds of the invention. Limitations appearing in the specification but not recited in the claim are not read into the claim. The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Each child produced in the system of Anderson is a generation with a corresponding value C (speculative count). There is nothing in the claim that would suggest that there is a difference between the generation produced by the Applicant's

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invention and the generation in the system of Anderson or between the speculation count recited by the Applicant or the value C of Anderson.

**n reference to Applicant's Argument:**

Further still, amended claim 11 recites an incremental cost function that determines speculative costs for speculative chromosomes, the speculative costs corresponding to an approximate change in costs of at least one associated parent chromosome due to a value set variation of the speculative chromosome relative to a value set of the at least one associated parent chromosome. Nothing disclosed in Anderson corresponds to the speculative costs recited in amended claim 11. Since amended claim 11 depends from amended claim 1, amended claim 11 recites a real cost function that determines real costs for a plurality of real chromosomes, and an incremental cost function that determines speculative costs for speculative chromosomes. Amended claim 11 recites two different cost functions, namely, a real cost function and an incremental cost function.

Anderson discloses that parent chromosomes and children chromosomes are assigned a score that indicates the performance of a particular chromosome. Anderson does not disclose that there is any difference between the process for determining a score for a parent chromosome and the process for determining a score for a child chromosome. Therefore, Anderson does not disclose both, a real cost function, and a speculative cost function, as recited in amended claim 11. Accordingly, Anderson does not disclose an incremental cost function that determines speculative costs for speculative chromosomes, the speculative costs corresponding to an approximate change in costs of at least one associated parent chromosome due to a value set variation of the speculative chromosome relative to a value set of the at least one associated parent chromosome, as recited in claim 11. Thus, Anderson does not disclose each and every element of amended claim 11.

Amended claim 12 recites assigning a speculative count to speculative chromosomes based on a corresponding generation of the speculative chromosome. As stated above with respect to amended claim 1, Anderson does not disclose a speculative count. Additionally, amended claim 12 recites approximating speculative costs for speculative chromosomes and determining real costs for at least one speculative chromosome. Thus, claim 12 recites two different costs, namely, real costs and approximate speculative costs. As stated above with respect to amended claim 11, Anderson only discloses assigning one kind of score. Thus, Anderson does not disclose each and every element of amended claim 12. Therefore, Anderson does not anticipate amended claim 12.

**Examiner's response:**

The arguments presented above regarding claims 11 and 12 are persuasive.

The rejections of claims 11 and 12 under 35 U.S.C. §102 have been withdrawn.

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**In reference to Applicant's Argument:**

Claims 13-21 depend either directly or indirectly from amended claim 12. Claims 13-21 are not anticipated by the cited art for at least the same reasons as amended claim 12 and for the specific elements recited therein. Accordingly, claims 13-21 should be patentable over the cited art.

**Examiner's response:**

Based on their dependency on claim 12, the rejections of claims 11 and 12 under 35 U.S.C. §102 have been withdrawn.

**In reference to Applicant's Argument:**

Amended claim 22 recites assigning a speculative count to speculative chromosomes based on a corresponding generation of the speculative chromosome. As stated above with respect to claim 1, Anderson does not disclose assigning a speculative count. Additionally, amended claim 22 recites approximating costs associated with speculative chromosomes in each speculative chromosome generation and determining real costs associated with at least one speculative chromosome that has a predetermined speculative count. Similarly to amended claim 12, amended claim 22 recites approximated costs and real costs. As stated above, Anderson only discloses assigning one kind of score. Therefore, Anderson does not disclose approximating costs associated with speculative chromosomes in each speculative chromosome generation and determining real costs associated with at least one speculative chromosome that has a predetermined speculative count, as recited in amended claim 22. Accordingly, Anderson does not disclose each and every element of amended claim 22.

**Examiner's response:**

The argument presented above regarding claim 22 is persuasive and therefore the rejection under 35 U.S.C. §102 is withdrawn.

**In reference to Applicant's Argument:**

Claims 23-25 depend from amended claim 22. Claims 23-25 are not anticipated by the cited art for at least the same reasons as amended claim 22 and for the specific elements recited therein. Accordingly, claims 23-25 should be patentable over the cited art.

**Examiner's response:**

Based on their dependency on claim 22, the rejection of claims 23-25 under 35 U.S.C. §102 is withdrawn.

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**In reference to Applicant's Argument:**

Amended claim 26 recites means for generating generations of speculative chromosomes with assigned speculative counts corresponding to a generation number of the speculative chromosome, the speculative chromosome being assigned a speculative count that is higher than a parent chromosome from which it is derived. As stated above with respect to claim 1, Anderson does not disclose a speculative count. Additionally, amended claim 26 recites means for postponing validation of at least one speculative chromosome, until at least one speculative chromosome has a predetermined speculative count. Anderson does not disclose postponing validation of at least one speculative chromosome, as recited in amended claim 26. Anderson discloses that each child chromosome may be simulated to determine its corresponding performance (See Anderson, Col. 3, Lines 27-30). Nothing in Anderson discloses postponing validation of at least one speculative chromosome, as recited in amended claim 26. Thus, Anderson does not disclose each and every element of amended claim 26.

**Examiner's response:**

The argument regarding the speculative counts has been addressed above.

Regarding the argument of postponing validation, in figure 2 of **Anderson**, the children are evaluated and assigned scores (validated) after the criterion  $C=N$  is met.

**In reference to Applicant's Argument:**

Additionally, amended claim 27 recites means for determining a speculative cost for a respective speculative chromosome, the speculative costs corresponding to an approximate change in costs of at least one associated parent chromosome due to a value set variation of the speculative chromosome relative to a value set of the at least one associated parent chromosome. Since claim amended 27 depends from amended claim 26, amended claim 27 recites means for determining real costs and means for determining speculative costs. As stated above, Anderson only discloses one kind of score that is assigned. Thus, Anderson does not disclose means for determining real costs and means for determining speculative costs, as recited in claim 27. Therefore, Anderson does not disclose each and every element of claim 27.

**Examiner's response:**

The argument presented above regarding claim 27 is persuasive and therefore the rejection under 35 U.S.C. §102 is withdrawn.



### **Conclusion**

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Correspondence Information***

10. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Omar F. Fernández Rivas, who may be reached Monday through Friday, between 8:00 a.m. and 5:00 p.m. EST. or via telephone at (571) 272-2589 or email [omar.fernandez\\_rivas@uspto.gov](mailto:omar.fernandez_rivas@uspto.gov).

If you need to send an Official facsimile transmission, please send it to (571) 273-8300.

If attempts to reach the examiner are unsuccessful the Examiner's Supervisor, David Vincent, may be reached at (571) 272-3080.

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Hand-delivered responses should be delivered to the Receptionist @ (Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22313), located on the first floor of the south side of the Randolph Building.

Omar F. Fernández Rivas  
Patent Examiner  
Artificial Intelligence Art Unit 2129  
United States Department of Commerce  
Patent & Trademark Office

Friday, September 01, 2006

*OFFR*

*David Vincent 9/5/06*  
DAVID VINCENT  
SUPERVISORY PATENT EXAMINER